

NOVEMBER 7.

The President, Dr. RUSCHENBERGER, in the chair.

Twenty-five members present.

A paper entitled "Notes on American Cretaceous Fossils, with descriptions of some New Species," by Wm. M. Gabb, was presented for publication.

On Conglomerate No. XII.—Mr. YOUNG described the Conglomerate No. XII. as it appears upon the New River in West Virginia.

The formation consists of alternate members of shale and sandstone; the latter numbering five, which are massive, but not conglomeritic, and form cliffs upon the sides of the hills which flank the river.

The shaly members of the group contain workable coal-beds. There are four beds, ranging in thickness from three to five feet. Small seams are also present.

The total thickness of the formation is about one thousand feet, half of which is represented in the sandstone cliffs.

The formation as above described extends from Hinton to Hawk's Nest, the latter point being a bold cliff formed of one of the sandstone layers of the formation.

The New River at Hinton falls over a barrier made by one of the sandstone members.

The falls of the Kanawha are made by the upper plate of the conglomerate.

The Australians.—Dr. PICKERING, having recently made a communication to the Academy on the sources of the native population of New Zealand and Tasmania, now proposed to speak of Australia.

The zoological character of Australia precludes the origin there of a member of the human family, and the Australians are intruding strangers; but where they come from is a mystery.

The most prominent photographs at the Centennial Exposition are unsatisfactory, with the exception of two life-sized heads of clearly pure-blooded natives; while the many excellent small photographs require closer inspection than is usually afforded to visitors.

At the Fiji Islands, he had been informed by a chief of the existence of "long-haired" people in the interior of the main island; similar accounts are given of other large islands westward, and there are inland people in the Malayan archipelago about whom very little is known; yet it does not seem probable that

any island in the whole series in question contains straight-haired blacks resembling Australians.

Though unprepared to cancel the Australian as a distinct physical race, he admits that affinity may possibly be found in the Telingan or Black Hindu; and, notwithstanding the general Caucasian features of Telingans, and the broad, flat nose and darker complexion of Australians, a match could probably be found of individuals not very dissimilar in personal appearance.

From eastern Hindustan, Telingans continue migrating by thousands to the Malayan archipelago, but, being all males, make very little impression on the resident population. He did not, while among them, apply the Caucasian test of the divided cartilage at the nasal extremity.

On Sonomaite.—Mr. E. GOLDSMITH stated that he had found among other undetermined minerals collected by Prof. F. V. Hayden in Sonoma County, Cal., near the geysers, one for which he proposed the name Sonomaite.

This is the composition of the first specimen—

Al	=	7.66 per cent.	=	3.56 per cent. oxygen.
Fe	=	2.01 “	=	0.46 “ “
Mg	=	7.14 “	=	3.21 “ “
S	=	38.78 “	=	23.26 “ “
H	=	44.41 “	=	39.55 “ “

A second specimen from another spot probably, but from the same locality, gave but a slightly different result, as the analysis showed—

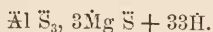
Al	=	8.36 per cent.	=	3.89 per cent. oxygen.
Fe	=	1.56 “	=	0.34 “ “
Mg	=	7.51 “	=	3.00 “ “
S	=	38.30 “	=	22.98 “ “
H	=	44.27 “	=	39.35 “ “

The oxygen ratios of both analyses are—

$$\text{Al} : \text{Mg (Fe)} : \text{S} : \text{H}.$$

$$3 : 3 : 18 : 33.$$

which result may be expressed in the formula—



The alumina was in these analyses precipitated twice in order to effect a complete separation of the magnesia. The water was found by the difference.

In regard to the oxidation of the iron, he ascertained that, if the watery solution of the salt was tested with a solution of sulphocyanide of potassium and well mixed, no red coloration appeared, but, on adding a few drops of diluted sulphuric acid, a reddish coloration became visible. It seems reasonable to assume that a small quantity of the iron was oxidized to sesquioxide, but had no acid with which to form the sesquisalt. The truth of this view becomes apparent if a few hundred milligrammes are dis-